Application of Safeguards in the Democratic People's Republic of Korea

Report by the Acting Director General

A. Introduction

1. The Director General’s report on the application of safeguards in the Democratic People’s Republic of Korea (DPRK), issued on 20 August 2018, was submitted to the Board of Governors and to the 62nd regular session of the General Conference in September 2018 (GOV/2018/34-GC(62)/12). This report provides an update of developments of direct relevance to the Agency, along with information on the DPRK’s nuclear programme.

2. Having considered the Director General’s report, the General Conference adopted resolution GC(62)/RES/11 on 21 September 2018 and decided to remain seized of the matter and to include the item in the agenda for its 63rd (2019) regular session.

3. The current report, which is being submitted to the Board of Governors and the General Conference, covers developments since the Director General’s report of August 2018.
B. Background

4. The Agency has not been able to verify the correctness and completeness of the DPRK’s declarations under the Agreement between the DPRK and the Agency for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) (hereinafter referred to as the “NPT Safeguards Agreement”).\(^1\) On 1 April 1993, the Board of Governors found, pursuant to Article 19 of the NPT Safeguards Agreement, that the Agency was not able to verify that there had been no diversion of nuclear material required to be safeguarded under the terms of the Agreement to nuclear weapons or other nuclear explosive devices, and decided to report the DPRK’s non-compliance and the Agency’s inability to verify such non-diversion to all Member States of the Agency, to the United Nations (UN) Security Council and to the UN General Assembly. Since 1994, the Agency has not been able to conduct all necessary safeguards activities provided for in the NPT Safeguards Agreement. From the end of 2002 until July 2007, the Agency was not able, and since April 2009 has not been able, to implement any safeguards measures in the DPRK.

5. Following the DPRK’s nuclear tests in 2006, 2009, 2013, 2016, and 2017, the UN Security Council adopted resolutions 1718 (2006), 1874 (2009), 2094 (2013), 2270 (2016), 2321 (2016) and 2375 (2017). In these resolutions, the UN Security Council, inter alia: demanded that the DPRK return at an early date to the NPT and IAEA safeguards; decided that the DPRK shall abandon all nuclear weapons and existing nuclear programmes in a complete, verifiable and irreversible manner and immediately cease all related activities and act strictly in accordance with the obligations applicable to parties under the NPT and the terms and conditions of its NPT Safeguards Agreement; and decided that the DPRK shall provide the Agency with transparency measures extending beyond these requirements, including such access to individuals, documentation, equipment and facilities as may be required and deemed necessary by the Agency. Contrary to the requirements of those resolutions, the DPRK has not abandoned its existing nuclear programme in a complete, verifiable and irreversible manner or ceased all related activities.

6. In April 2013, the General Department of Atomic Energy of the DPRK announced that the DPRK would take measures for “readjusting and restarting all the nuclear facilities in Nyongbyon\(^2\) including uranium enrichment plant and 5 MW[(e)] graphite moderated reactor”.\(^3\) In September 2015, the Director of the Atomic Energy Institute of the DPRK announced that “all the nuclear facilities in Nyongbyon including the uranium enrichment plant and 5 MW [(e)] graphite-moderated reactor were rearranged, changed or readjusted and they started normal operation…”\(^4\)

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\(^1\) The DPRK concluded an agreement with the Agency, based on INFCIRC/66/Rev.2, for the application of safeguards in respect of a research reactor (INFCIRC/252) in July 1977. Under this item-specific safeguards agreement, safeguards were applied by the Agency to two nuclear research facilities in Yongbyon: the IRT Research Reactor and a critical assembly. Although the DPRK acceded to the NPT in December 1985, its NPT Safeguards Agreement with the Agency, based on INFCIRC/153 (Corrected), only entered into force in April 1992 (INFCIRC/403). As provided for in Article 23 of the NPT Safeguards Agreement, the application of safeguards under the earlier safeguards agreement (INFCIRC/252) is suspended while the NPT Safeguards Agreement is in force.

\(^2\) Nyongbyon is also known as Yongbyon.

\(^3\) ‘DPRK to Adjust Uses of Existing Nuclear Facilities’, Korean Central News Agency (KCNA), 2 April 2013. The Agency refers to this reactor as the Yongbyon Experimental Nuclear Power Plant (5 MW(e)).

C. Developments

7. Since the Director General’s report, the following developments have occurred:

(a) The denuclearization of the Korean peninsula was, inter alia, discussed during the following meetings between Chairman of the State Affairs Commission Kim Jong Un of the DPRK and the following Heads of State:

i. From 18 to 20 September 2018, with President Moon Jae-in of the Republic of Korea (ROK), after which a joint statement by President Moon and Chairman Kim was issued, including that they had “agreed to cooperate closely in the process of pursuing complete denuclearisation of the Korean Peninsula”.5

ii. From 8 to 9 January 2019, with President Xi Jinping of the People’s Republic of China (PRC).6

iii. From 27 to 28 February 2019, with President Donald J. Trump of the United States of America.7,8

iv. On 25 April 2019, with President Vladimir V. Putin of the Russian Federation.9

v. From 20 to 21 June 2019, with President Xi Jinping of the PRC.10

vi. On 30 June 2019, with President Donald J. Trump of the United States of America.11

(b) On 1 January 2019, the DPRK announced that it “would neither make and test nuclear weapons any longer nor use and proliferate them...” and that it would “create a capacity for generating tidal, wind and atomic power under a far-reaching plan”.12

8. As the Agency remains unable to carry out verification activities in the DPRK, its knowledge of the DPRK’s nuclear programme is limited and, as further nuclear activities take place in the country, this knowledge is declining. Nevertheless, it is important for the Agency to remain cognizant of developments in that programme to the fullest extent possible, especially in light of support by the General Conference of the Secretariat’s intensified efforts to enhance its readiness to play its essential role in verifying the DPRK’s nuclear programme, including the capability to re-establish the implementation of safeguards-related activities in the DPRK.13

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6 ‘Supreme Leader Kim Jong Un Visits China’, Ministry of Foreign Affairs of the DPRK, 10 January 2019.
8 ‘Supreme Leader Kim Jong Un, President Trump Hold Second-day Talks’, Ministry of Foreign Affairs of the DPRK, 1 March 2019.
11 ‘Supreme Leader Kim Jong Un Has Historic Meeting with U.S. President Donald Trump at Panmunjom’, Ministry of Foreign Affairs of the DPRK, 1 July 2019.
13 GC(62)/RES/11, paras 11 and 12.
9. Since the Director General’s report, the DPRK Team and the Executive Group have intensified their efforts to enhance the Agency’s readiness to play its essential role in verifying the DPRK’s nuclear programme. The DPRK Team has further increased the frequency of collection of satellite imagery, procured equipment and supplies, updated verification approaches and procedures, conducted specialized training, commenced new knowledge management activities, and ensured the availability of appropriate verification technologies and equipment. All of these efforts related to the Agency’s enhanced readiness have been conducted within available resources, including extrabudgetary contributions from a number of Member States. Once a political agreement has been reached among the countries concerned, the Agency is ready to return to the DPRK in a timely manner, if requested to do so by the DPRK and subject to approval by the Board of Governors.

D. Other Information on the DPRK’s Nuclear Programme

10. Since the Director General’s report, the Agency has continued to monitor developments in the DPRK’s nuclear programme and to evaluate all safeguards relevant information available to it, including open source information and satellite imagery. The Agency has not had access to the Yongbyon site or to other locations in the DPRK. Without such access, the Agency cannot confirm either the operational status or configuration/design features of the facilities or locations as described in this section, or the nature and purpose of the activities conducted therein.

11. The Yongbyon Site. The details of developments at the Yongbyon site are set out in paragraphs 12–16 below.

12. Yongbyon Experimental Nuclear Power Plant (5MW(e)). Until mid-August 2018, the Agency observed indications that were consistent with the operation of the reactor. From mid-August through late November 2018, there were indications that the reactor was not in continuous operation. Since early December 2018, there have been no indications of the reactor’s operation. The Agency’s observations indicate that the reactor has been shut down for a sufficient length of time for it to have been de-fuelled and subsequently re-fuelled.

13. Radiochemical Laboratory. During the reporting period, the Agency has not observed any indications of reprocessing activities at the Radiochemical Laboratory.

14. Yongbyon Nuclear Fuel Rod Fabrication Plant. There have been indications consistent with the use of the reported centrifuge enrichment facility located within the plant, including the operation of the cooling units as well as regular movements of vehicles. Since early 2019, the Agency has observed no further renovation and construction work on the buildings in the south-eastern area of the plant. There have been indications of possible chemical processing taking place in these buildings.

15. Light Water Reactor (LWR) under construction. During late September and early October 2018, the Agency observed activities consistent with the transfer of major reactor components into the reactor containment building. After mid-October 2018, the Agency did not observe activities consistent with the fabrication of major reactor components in the LWR construction yard. Movements of construction vehicles near the reactor containment building, turbine hall and electrical switchyard


15 The names of the nuclear facilities at the Yongbyon site are as previously declared by the DPRK to the Agency (GOV/2011/53-GC(55)/24, Annex), except for the Light Water Reactor, which the DPRK has not declared to the Agency.

16 The DPRK stated in April 2009 that it would build an LWR. See GOV/2011/53-GC(55)/24, para. 31.
continue to be observed. The Agency has not observed any indications of operation of the reactor, although there was an indication of a test of parts of the cooling infrastructure in March 2019.

16. **Construction in and near the Kuryong River.** During the period September to November 2018, further activities were observed near the Kuryong River which may have been related to changes to the cooling system for the LWR under construction and/or the 5MW(e) reactor.

17. **The Pyongsan Mine and Concentration Plant.** There have been indications of ongoing mining, milling and concentration activities at locations previously declared as the Pyongsan uranium mine and the Pyongsan uranium concentration plant.\(^\text{17}\)

18. **Other Locations.** At the group of buildings within a security perimeter in the vicinity of Pyongyang,\(^\text{18}\) there were indications of ongoing activities. As stated above (paragraph 10), without access, the Agency cannot confirm the nature and purpose of the activities conducted therein.

**E. Summary**

19. Since the Director General’s report of August 2018, some of the DPRK’s nuclear facilities appeared not to be operating while activities at some other facilities continued or developed further. The DPRK’s nuclear activities remain a cause for serious concern. The continuation of the DPRK’s nuclear programme is a clear violation of relevant UN Security Council resolutions and is deeply regrettable.

20. Following last year’s report, the Director General continued to call upon the DPRK to comply fully with its obligations under relevant UN Security Council resolutions, to cooperate promptly with the Agency in the full and effective implementation of its NPT Safeguards Agreement and to resolve all outstanding issues, including those that have arisen during the absence of Agency inspectors from the DPRK. The Acting Director General reiterates those calls. The Agency continues to enhance its readiness to play its essential role in verifying the DPRK’s nuclear programme.

\(^{17}\) GOV/2011/53-GC(55)/24, para. 28.

\(^{18}\) GOV/2018/34-GC(62)/12, para. 22.